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IS 4674 (1975): Dressed Chicken [FAD 18: Slaughter House and Meat Industry]



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Indian Standard
SPECIFICATION FOR DRESSED CHICKEN
(First Revision)

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BUREAU OF INDIAN STANDARDS
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NEW DELHI 110002

Price Group 3

Indian Standard

SPECIFICATION FOR DRESSED CHICKEN

(*First Revision*)

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Indian Standard
SPECIFICATION FOR DRESSED CHICKEN
(*First Revision*)

0. FOREWORD

0.1 This Indian Standard (First Revision) was adopted by the Indian Standards Institution on 22 December 1975, after the draft finalized by the Meat and Meat Products Sectional Committee had been approved by the Agricultural and Food Products Division Council.

0.2 With the installation of poultry dressing plants in the country, the production of dressed chicken is increasing considerably. Moreover, there is an increased demand for poultry products in the country. This standard is being formulated to provide guidelines of quality control to the trade and to meet the consumer demand for a wholesome and graded chicken.

0.3 This standard was published in 1968. The present revision incorporates additional method for grading of poultry and requirements for ante-mortem and post-mortem inspection as well as handling and processing of poultry. The requirements of sensory evaluation based on the procedure laid down in IS:7049-1973* have also been incorporated. It is hoped that these would help in defining the quality of poultry in a better way.

0.4 In the preparation of this standard, due consideration has been given to the provisions of the Prevention of Food Adulteration Act, 1954, and the Rules framed thereunder. However, this standard is subject to the restrictions imposed under the Act, wherever applicable.

0.5 In the preparation of this standard, assistance has been derived from the following publications:

CFS 5-6-19 Specification for poultry. Commonwealth Food Specifications, Commonwealth of Australia.

ASC Specification No. 154 Poultry, dressed. Director of Supplies and Transport, Army Headquarters, New Delhi.

KOTSCHEVAR (L H). Quantity food purchasing. 1961. John Wiley and Sons, Inc., New York.

0.6 This standard contains clause **A-1.1** which calls for an agreement between the purchaser and the supplier.

*Code for handling, processing, quality evaluation and storage of poultry.

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0.7 This edition 2.1 incorporates Amendment No. 1 (March 2004). Side bar indicates modification of the text as the result of incorporation of the amendment.

0.8 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard prescribes the requirements and the methods of sampling and test for dressed chicken.

2. TERMINOLOGY

2.0 For the purpose of this standard, the following definitions shall apply.

2.1 Broiler or Fryer — A broiler or fryer is a young meat-type chicken (usually 8 to 10 weeks of age), of either sex, that is, tender-meated with soft, pliable, smooth-textured skin and flexible breastbone cartilage.

2.2 Roaster — A roaster is a young chicken (usually 3 to 5 months of age), of either sex, that is, tender-meated with soft, pliable, smooth-textured skin and breastbone cartilage that may be somewhat less flexible than that of a broiler or fryer.

2.3 Stag — A stag is a male chicken (usually under 10 months of age) with coarse skin, somewhat toughened and darkened flesh, and considerable hardening of the breastbone cartilage. Stags show a condition of fleshing and a degree of maturity intermediate between that of roaster and a cock or rooster.

2.4 Stewing Chicken or Fowl — A stewing chicken or fowl is a mature chicken (usually more than 10 months of age) with meat less tender than that of a roaster, and non-flexible breastbone tip.

2.5 Cock or Rooster — A cock or rooster is a mature male chicken (usually over 10 months of age) with coarse skin, toughened and darkened meat, and hardened breastbone tip.

3. TYPES

3.1 Dressed chicken shall be of the following two types:

Type A — Dressed chicken, chilled; and

Type B — Dressed chicken, frozen.

*Rules for rounding off numerical values (*revised*).

4. GRADES

4.1 Depending upon the characteristics as given in Table 1, dressed chicken shall be of two grades, namely, Grade 1 and Grade 2. The method of grading shall be as given in 7 of IS: 7049-1973*.

5. REQUIREMENTS

5.1 Hygienic Requirements for Dressing Plant — Dressed chicken shall be prepared and handled under strict hygienic conditions by persons free from contagious and infectious diseases and only in the premises maintained in a thoroughly clean and hygienic condition and having adequate and safe water supply (see IS : 2491-1972†) and duly approved and licensed by public health authority concerned. All workers shall use clean-washed clothings. Necessary precautions shall be taken to prevent incidental contamination of the product from soiled equipment or from persons suffering from injuries.

5.1.1 All equipment coming in contact with raw material or product in the course of manufacture shall be kept clean. Adequate supply of steam/boiling water and cold water, hose, brushes, and other equipment necessary for proper cleaning of machinery and equipment shall be available. The equipment may be sterilized by immersion in, or swabbing with, hypochlorite or other suitable chlorine solution.

5.1.2 Quality of water used for processing shall conform to IS : 4251-1967‡.

5.2 Requirements for Live Chicken — The material shall be the carcasses derived for the live chickens which shall be healthy and well-nourished. The birds tendered shall have their breastbones well-covered with flesh. The eyes of the birds shall be bright, nostrils free from discharge, combs and wattles firm and bright in colour, feathers glossy, the movements active and showing no evidence of diarrhoea or any other disease.

5.3 The poultry shall be subjected to ante-mortem and post-mortem inspection in accordance with IS : 6559-1972§.

5.4 Requirements for Dressed Chicken

5.4.1 Dressed chicken shall be the properly bled and dressed carcass of live chicken slaughtered in licensed premises and subjected to veterinary inspection.

*Code for handling, processing, quality evaluation and storage of poultry.

†Code for hygienic conditions for food processing units (*first revision*).

‡Quality tolerances for water for processed food industry.

§Code of practice for ante-mortem and post-mortem inspection of poultry.

TABLE 1 GRADING CHARACTERISTICS FOR DRESSED CHICKEN*(Clause 4.1)*

SL No.	CHARACTERISTIC	GRADE 1	GRADE 2
(1)	(2)	(3)	(4)
i)	Conformation	Free of deformities that detract from its appearance or that affect the normal distribution of flesh. Slight deformities, such as slightly curved or dented breastbones and slightly curved backs may be present	Slight abnormalities, such as dented, curved or crooked breastbone, crooked back, or mis-shapen legs or wings, which do not materially affect the distribution of flesh or the appearance of the carcass or part
ii)	Fleshing	The breast is moderately long and deep and has sufficient flesh to give it a rounded appearance with the flesh carrying well up to the crest of the breastbone along its entire length	The breast has a substantial covering of flesh carrying up to the crest of the breastbone sufficiently to prevent a thin appearance
iii)	Fat covering	The fat is well-distributed so that there is a noticeable amount of fat in the skin in the areas between the heavy feather tracts	The fat under the skin is sufficient to prevent a distinct appearance of the flesh through the skin, specially on the breast and legs
iv)	Defeathering	Free of pinfeathers, diminutive feathers, and hair which are visible to the inspector or grader	Not more than an occasional protruding pinfeather or diminutive feather shall be in evidence under a careful examination
v)	Cuts and tears	Free of cuts and tears on the breast and legs	The carcass may have very few cuts and tears
vi)	Discoloration	Discoloration due to bruising shall be free of clots. Flesh bruises and discolorations of the skin, such as 'blue back' are not permitted on the breast or legs of the carcass or on these individual parts and only lightly shaded discolorations are permitted elsewhere	Discoloration due to bruising shall be free of clots. Moderate areas of discoloration due to bruises in the skin or flesh and moderately shaded discolorations of the skin, such as 'blue back', are permitted
vii)	Freezer burn	May have an occasional pock-mark due to drying of the inner layer of skin (derma), provided that none exceeds the area of a circle 5 mm in diameter	May have a few pock-marks due to drying of the inner layer of skin (derma), provided that no single area exceeds that of a circle 15 mm in diameter

5.4.2 The chicken shall be suitably scalded (*see* IS : 7049-1973*) and all pinfeathers and body hairs removed by picking or singeing. The chicken shall be well-dressed, feet shall be well-cleaned and vents shall be emptied.

5.4.3 The carcass shall be eviscerated; head, feet and oil glands removed; and shall be properly cleaned and washed. The carcass shall then be suitably chilled as required in **5.5.1**.

5.4.4 The poultry shall be handled and processed according to the provisions of IS : 7049-1973*.

5.5 Other Requirements

5.5.1 *Type A (Dressed Chicken, Chilled)* — The carcass shall be chilled so that the temperature of the deepest portion of the flesh near the bone shall be 1°C.

5.5.2 *Type B (Dressed Chicken, Frozen)* — The chilled carcass shall be individually packed in polyethylene bags and shall be frozen solid when delivered. The giblets should be removed and frozen separately, if necessary.

5.5.3 The carcass shall not show any evidence of deterioration, discoloration or any slimy appearance on storage.

6. SENSORY EVALUATION

6.1 The dressed poultry shall be evaluated for overall sensory quality in accordance with the procedure prescribed in **8.1** and Appendix A of IS : 7049-1973*. The poultry shall be deemed to have passed the test if the overall quality score is not below 4.

7. PACKING AND MARKING

7.1 Packing — Before packing, the gizzard rid of the internal contents and mucosal layer, the heart after removal of pericardium, the liver without gall bladder and the neck should be placed into the abdominal cavity of the carcass enclosed in a polyethylene bag. The carcass shall be dressed by folding back the wings and introducing the legs through the abdominal opening cut through the vent opening.

7.1.1 The drained and dressed birds shall be packed into suitable sized polyethylene bags (50 microns) or other suitable packing media. Before final sealing, the packs shall be immersed into vats containing water to expel the content of air between the carcass and the bag, taking care that no water is introduced in the pack. Alternatively, vacuum packing or shrink wrapping of the packs may be adopted. After the air inside is expelled, the bag shall be sealed in a sealer or shall be knotted using rubber bands.

*Code for handling, processing, quality evaluation and storage of poultry.

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7.2 Marking — Each pack shall be marked to give the following information:

- a) Type and grade of the material,
- b) Name or trade-mark of the processor,
- c) Net mass and gross mass for frozen chicken,
- d) Date of packing, and
- e) Any other requirement according to the Packaged Commodities (Regulation) Order, 1975.

7.2.1 The containers may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

8. SAMPLING

8.1 Representative samples of the material for testing conformity to this standard shall be drawn according to the method prescribed in Appendix A.

A P P E N D I X A

(*Clause 8.1*)

SAMPLING OF DRESSED CHICKEN

A-1. GENERAL REQUIREMENTS OF SAMPLING

A-1.1 Sampling shall be done by a person agreed to between the purchaser and the supplier and, if desired by any one of them, in the presence of the purchaser (or his representative) and the supplier (or his representative).

A-1.2 Samples shall be stored at a temperature ranging from -1°C to $+2^{\circ}\text{C}$.

A-2. SCALE OF SAMPLING

A-2.1 In any consignment, all the packages of the same size and the same grade shall be grouped together to constitute a lot.

A-2.2 The number of packages to be selected from the lot shall depend on the size of the lot and shall be as given below:

<i>No. of Packages in the Lot</i>	<i>No. of Packages to be Selected</i>
<i>N</i>	<i>n</i>
(1)	(2)
Up to 65	3
66 to 110	4
111 „ 180	5
181 „ 300	6
301 „ 500	7

A-2.3 The packages shall be selected at random. In order to ensure the randomness of selection, a random number table (*see* IS : 4905-1968*) shall be used. In case such table is not available, the following procedure may be adopted:

Starting from any package in the lot, count them as 1, 2, 3, etc, up to r in a systematic manner, where r is equal to the integral part of the value of N/n , N being the total number of packages in the lot and n the number of packages to be chosen (*see* A-2.2). Every r th package thus counted shall be picked up until the requisite number of packages is obtained from the lot to constitute samples for the test.

A-3. TESTING OF SAMPLES

A-3.1 The samples selected according to A-2.2 shall be tested for the requirements as given in 4, 5 and 6.

A-4. CRITERION FOR CONFORMITY

A-4.1 The lot shall be deemed to have satisfied the requirements of this specification, if all the samples tested satisfy the requirements prescribed in 4, 5 and 6.

*Methods for random sampling.

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